Division of TennCare

Health Care Innovation Initiative

Executive Summary

Pediatric Pneumonia Episode

Corresponds with DBR and Configuration file V1.0

Updated: June 8, 2018

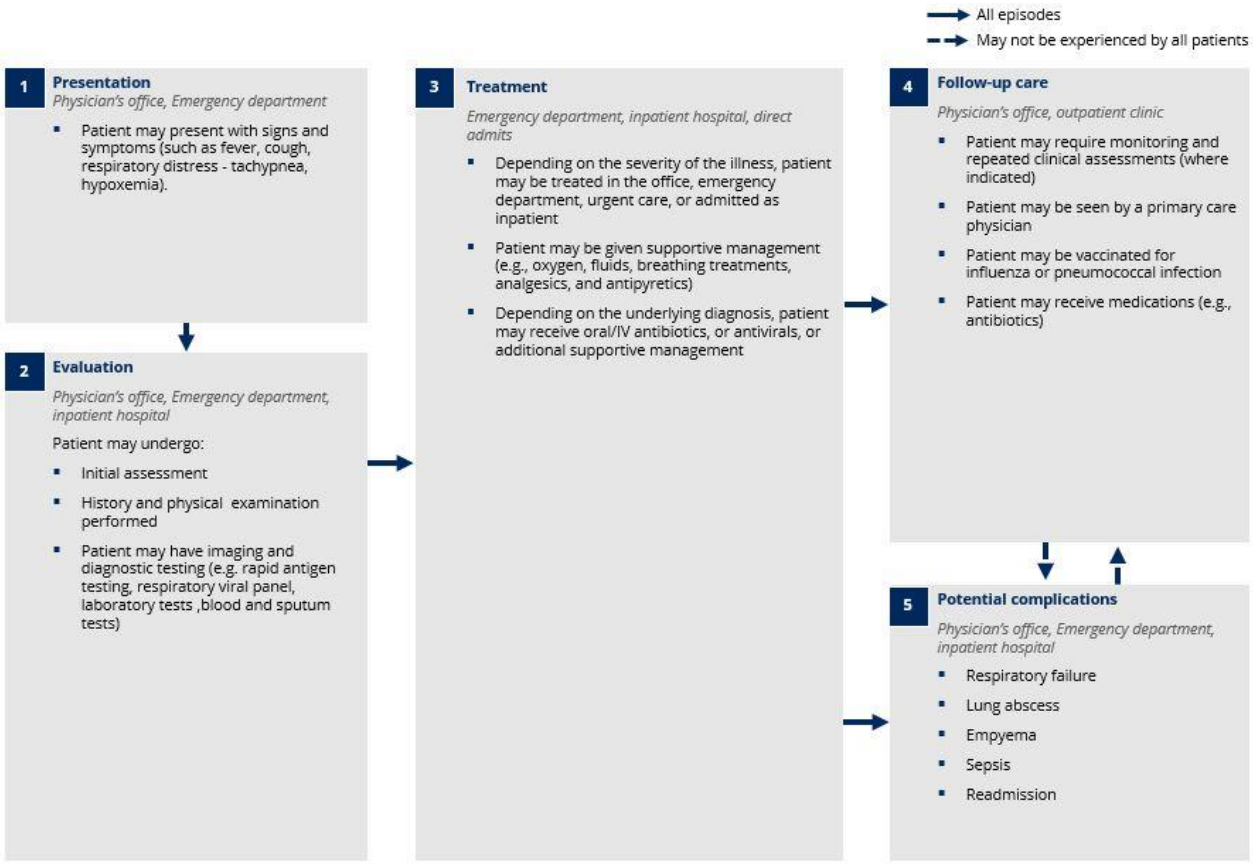
OVERVIEW OF A PEDIATRIC PNEUMONIA EPISODE

The pediatric pneumonia episode revolves around pediatric patients who are cared for in an inpatient, observation, or emergency department (ED) setting for pneumonia. The trigger event is an inpatient admission, observation stay, or ED visit for pediatric pneumonia. All related care – such as imaging and testing, surgical and medical procedures, and medications – is included in the episode. The quarterback, also called the principal accountable provider or PAP, is the facility where the ED visit, observation stay, or inpatient admission took place. The pediatric pneumonia episode begins with the inpatient admission, observation stay, or ED visit and ends 7 days after discharge.

CAPTURING SOURCES OF VALUE

Providers have multiple opportunities during a pediatric pneumonia episode to improve the quality and cost of care. Important sources of value include choosing the most appropriate imaging and testing, choosing an appropriate length of stay in the hospital, selecting the most appropriate type of treatment to address the underlying cause, and selecting the most appropriate post-acute setting of care. Other important sources of value include optimizing medication regimens and providing patient education or timely follow-up when appropriate to decrease the likelihood of post-discharge readmissions or ED visits.

Illustrative Patient Journey



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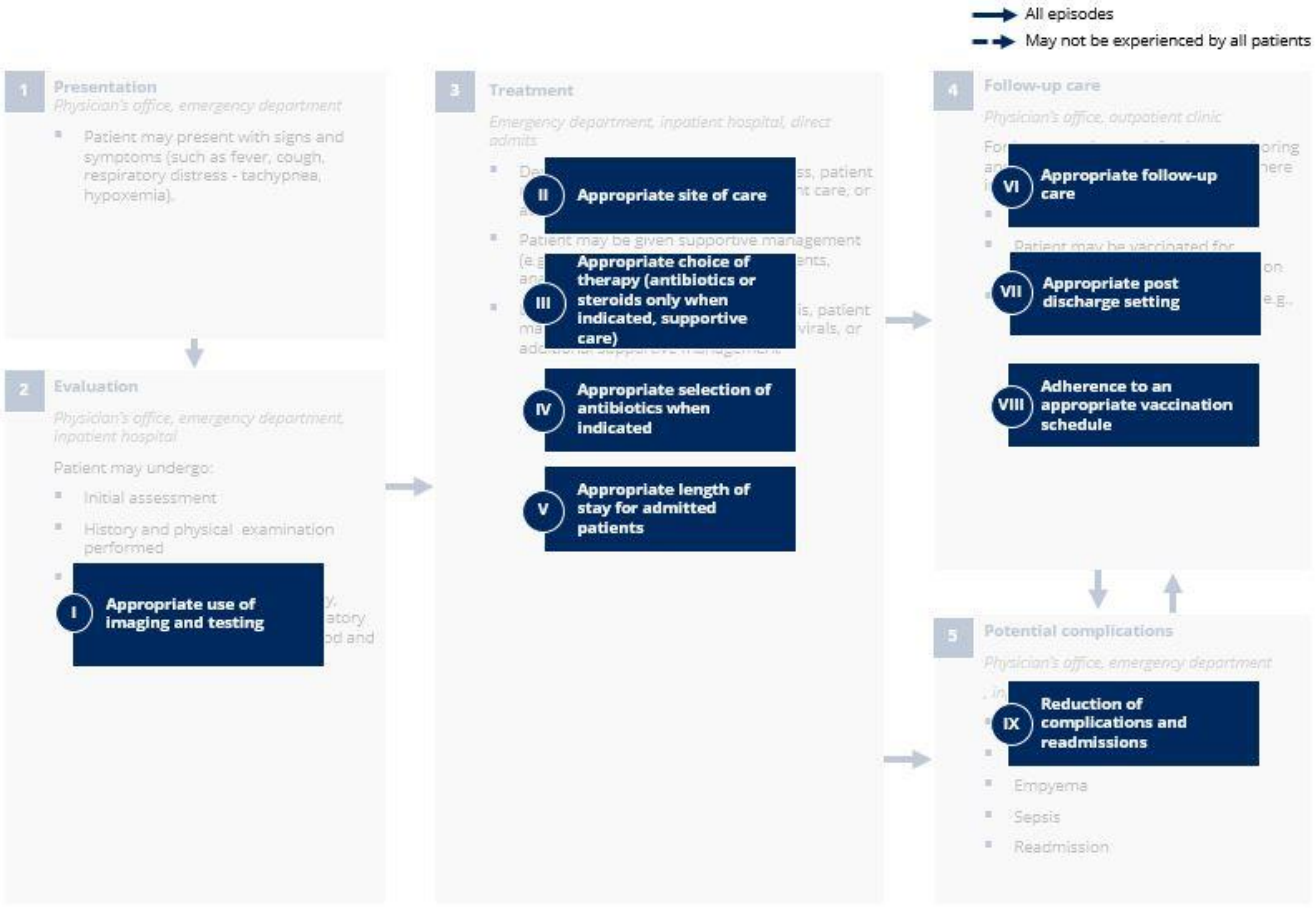
Potential Sources of Value



ASSIGNING ACCOUNTABILITY

The quarterback of the episode is the specific health care provider deemed to have the greatest accountability for the quality and cost of care for the patient. To state it differently, the quarterback is the provider who has the greatest ability to influence all of the health care delivered in a given episode. For the pediatric pneumonia episode, the quarterback is the facility where the ED visit, observation stay, or inpatient admission took place. The contracting entity or tax identification number of the facility where the pediatric pneumonia was treated will be used to identify the quarterback.

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MAKING FAIR COMPARISONS

The episode model is designed to be fair to providers and incentivize best practices without penalizing providers who care for sicker patients. As such, important aspects of the model are:

- Inclusion of only the cost of services and medications that are related to pediatric pneumonia in calculation of episode spend.
- Exclusion of episodes when clinical circumstances create the likelihood that the case will deviate substantially from the typical care path or when claims data is likely to be incomplete.
- Risk adjusting episode spend to account for the cost of more complicated patients.

The pediatric pneumonia episode has no pre-trigger window. During the trigger window, all services and specific medications are included. The post-trigger window includes care for specific diagnoses, specific imaging and testing, specific medications, and specific surgical and medical procedures. Specific excluded surgical and medical procedures such as palivizumab administration are excluded from the trigger and post-trigger windows.

Some exclusions apply to any type of episode, i.e., are not specific to a pediatric pneumonia episode. For example, an episode would be excluded if more than one payer was involved in a single episode of care, if the patient was not continuously insured by the payer during the duration of the episode, or if the patient had a discharge status of 'left against medical advice'. Examples of exclusion criteria specific to the pediatric pneumonia episode include patients with cystic fibrosis, chronic obstructive pulmonary disease, active cancer management, immunodeficiency, or congenital heart disease. These patients have significantly different clinical courses that the episode does not attempt to risk adjust. Furthermore, there may be some factors with a low prevalence or significance that would make accurate risk adjustment difficult and may be used to exclude patients completely instead of adjusting their costs.

For the purposes of determining a quarterback's cost of each episode of care, the actual reimbursement for the episode will be adjusted to reflect risk factors captured in recent claims data in order to be fair to providers caring for more complicated patients. Examples of patient factors likely to lead to the risk adjustment of a pediatric pneumonia episode include asthma, acute bronchospasm, respiratory failure, or diabetes mellitus. Over time, a payer may adjust risk factors based on new data.

MEASURING QUALITY

The episode reimbursement model is designed to reward providers who deliver cost effective care AND who meet certain quality thresholds. A quarterback must meet or exceed all established benchmarks for any quality metric tied to gain sharing in order to be eligible to receive monetary rewards from the episode model. Other quality metrics may be tracked and reported for quality improvement purposes but may not be tied directly to gain sharing.

The quality metrics linked to gain sharing for the pediatric pneumonia episode are:

- **Related admission during the post-trigger window:** Percentage of valid episodes with a related admission during the post-trigger window (lower rate indicative of better performance)
- **Utilization of macrolides in patients under 6 years old:** Percentage of valid episodes in patients under 6 years old that contain a prescription for or administration of macrolides during the episode window (lower rate indicative of better performance)
- **Utilization of narrow spectrum antibiotics:** Percentage of valid episodes with utilization of antibiotics that contain a prescription for or administration of narrow spectrum antibiotics during the episode window (higher rate indicative of better performance)

The quality metrics that will be tracked and reported to providers but that are not tied to gain sharing are:

- **Admission during the trigger window:** Percentage of valid episodes with an admission during the trigger window (lower rate indicative of better performance)
- **Utilization of chest physical therapy (PT):** Percentage of valid episodes with utilization of chest PT during the episode window (lower rate indicative of better performance)
- **Utilization of blood or sputum cultures:** Percentage of valid episodes with blood or sputum cultures during the episode window (rate is not indicative of performance)
- **Utilization of respiratory viral testing:** Percentage of valid episodes with respiratory viral testing during the episode window (rate is not indicative of performance)
- **Utilization of more than one chest x-ray:** Percentage of valid episodes where the patient receives more than one chest x-ray during the episode window (lower rate indicative of better performance)

It is important to note that quality metrics are calculated by each payer on a per quarterback basis across all of a quarterback's episodes covered by that payer. Failure to meet all quality benchmarks tied to gain sharing will render a quarterback ineligible for gain sharing with that payer for the performance period under review.